

Claims

1. A device for the expression and dosed application of a flowable paste-like substance, comprising a housing (1), an accommodating chamber (3) provided for a disposable substance pack and adapted to be opened on at least one end thereof, a discharge nozzle (9), and a plunger provided on the other end of the accommodating chamber (3) and being displaceable in the direction of the discharge nozzle (9), the plunger being operative to directly or indirectly press out the paste-like substance from the discharge nozzle (9) in that a corresponding pressure is exerted by use of pressurized air which is generated by a compressor (5) driven by an electric motor (4) connected to an accumulator (2),
characterized in that an elongate plunger (15) provided with two continuous seals (16) on its outer side is arranged for free movement within the accommodating chamber (3).
2. The device according to claim 1, **characterized in** that each of the two seals (16) is accommodated within a continuous groove in the region of both ends of a circularly cylindrical plunger (15).
3. The device according to claim 1 or 2, **characterized in** that, for pressing out substances from rigid cartridge containers (50), an additional continuous sealing ring (17) is provided for sealing purposes on the upper side of the plunger (15) facing towards the cartridge container.
4. The device according to any one of claims 1 to 3, **characterized in** that the plunger (15) has formed therein a pressure chamber (16₁) having a substantially circularly cylindrical shape or frustoconical shape and merging into a centrally arranged connector piece (20) provided with a continuous axial bore (19) extending therethrough.

5. The device according to claim 4, **characterized in** that the axial bore (19) in the connector piece (20) is closeable by a nut cap (18).
- 5 6. The device according to claim 4, **characterized in** that the axial bore (19) in the connector piece (20) is closeable by a recess (41) provided at one end of a rod (40).
7. The device according to claim 1, **characterized in** that, for tight closure of the end of a rigid cartridge container (50) facing away from the discharge nozzle (51), a dome-shaped cap (23) made of an elastic rubbery material is provided.
- 10 8. The device according to claim 7, **characterized in** that the dome-shaped cap (23) is formed with a central opening (23₁).
- 15 9. The device according to any one of claims 1 to 5, **characterized by** a disk (24) made of an elastically resilient material, having a diameter corresponding to the cartridge accommodating chamber (3) and provided with a number of radial recesses (24₁) and with a central opening (24₂) having a diameter substantially corresponding to the diameter of the bore (19) in the connector piece (20).
- 20 10. The device according to any one of claims 1 to 5, **characterized by** a circularly cylindrical crown (25) made of elastically resilient material and comprising a number of axial recesses (25₁).
- 25 11. The device according to claim 1, **characterized by** a compressor (30) comprising a cylinder (31) having one of its ends supported in a fixed position, the mutually opposite end portions (32;33) of the cylinder (31) being provided with respectively one inlet valve (32₁;33₁) and respectively one outlet valve (32₂;33₂), and the cylinder (31) having arranged therein a reciprocable piston (35) driven by an eccentric disk (34), and connection
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members (34;35) being arranged at the two outlet valves (32₂;33₂) which are connected to a pressure line (36).

- 5 12. A heater device for the device according to any one of claims 1 to 10, **characterized in** that the heater device is provided as a removable heater device (60) surrounding the accommodating chamber (3).
- 10 13. The heater device according to claim 12, **characterized in** that the heater device (60) comprises two mutually attached circularly cylindrical heater bodies (61;62) foldable into an opened position.
- 15 14. The heater device according to claim 13, **characterized in** that the two heater bodies (61;62) each comprise two double-walled half shells (63;64) forming respective circularly cylindrical hollow bodies and being articulated to each other, the half shells (63;64) having heater wires arranged internally thereof which are energized by an accumulator or the power grid.
- 20 15. The device according to any one of claims 1 to 10, **characterized in** that, instead of a compressor, at least one commercially available CO₂ cartridge (22) can be connected via a pressure reducer (21).
- 25 16. The device according to any one of claims 1 to 10, **characterized in** that, instead of a compressor, one and preferably two or more CO₂ cartridges (22) mounted in the accommodating chamber (3) can be connected via a hose connection (26) and a pressure reducer (21).